

ATKINS

SILVER STEEL SAWS



SawSense

Atkins Saws, Saw Tools Plastering Trowels *and* Specialties

ARE FOR SALE by the best dealers everywhere. It may be, however, that your local dealer has not in stock the particular article that you wish.

Now we want you to know
that he

Can get it for you

and will be glad to do so if you only

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We want to make it easy for you to buy Atkins products, and will do so if you will help us just a little. If you should have the least trouble, let us know. We'll see to it that you can easily secure the particular saw, trowel, tool or specialty that you wish.

E.C. ATKINS & CO., Inc.

(Established 1857)

Home Office and Factory
Indianapolis, Ind., U. S. A.

Machine Knife Factory
Lancaster, N. Y.

Canadian Factory, Hamilton, Ont.

BRANCHES

Atlanta

Chicago

Memphis

Minneapolis

New York

New Orleans

Portland

San Francisco

Seattle

Paris, France

Vancouver, B. C.

THE SAW

The most important tool in the
Carpenter's kit.

In order to do the best work with the least exertion, your saw must be made of the proper material and scientifically constructed.

ATKINS SILVER STEEL SAWS have marked an epoch in the history of the saw. They are not only made of the very finest material, but are constructed on new, exclusive scientific principles which are instantly appreciated by the lover of fine tools.

SILVER STEEL

SILVER STEEL is the invention of Mr. E. C. Atkins, the founder of E. C. ATKINS & CO. He was the first manufacturer of saws to realize that high-class mechanics would appreciate the greatest value and finest quality. SILVER STEEL was born of this idea.

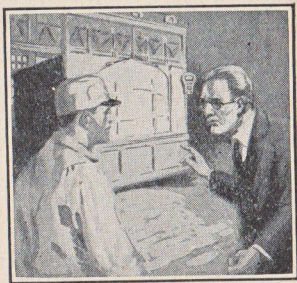
It is manufactured under a special formula for E. C. ATKINS & CO. (exclusively). Nothing but virgin ore is used, combined with the finest and most expensive ingredients, and the result is a steel of as high quality as the finest RAZOR STEEL. No saw is a genuine SILVER STEEL SAW unless the name *SILVER STEEL* is plainly etched on the blade.

THE TEMPER

All ATKINS SILVER STEEL SAWS are tempered by gas. The degree of temper to be given to each blade is prescribed by the chemist in the laboratory and regulated in the tempering room by mechanical devices which insure absolute uni-

formity. They are not dependent upon the judgment of any one man, nor subjected to the variation which might occur by the old-fashioned "rule of the thumb."

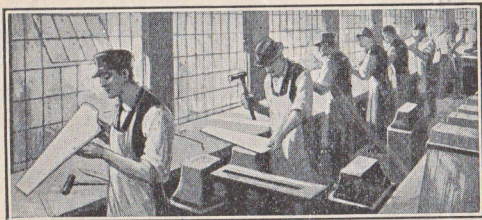
The use of this heat treatment renders the blade uniformly tough and hard without being brittle, and prevents hard and soft spots which sometimes occur in blades of inferior and cheaper manufacture. The



Inspecting temperature of saw furnace

saw cuts and wears evenly throughout the entire blade. This is one of the reasons why a SILVER STEEL SAW will retain its cutting edge longer than any other. This also enables you to file the saw easier, and to make each tooth uniform.

THE SMITHING



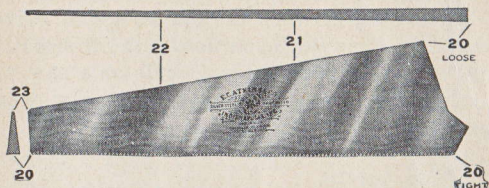
Atkins skilled saw smiths

The smithing of a hand saw is the process which enables the blade to run true to the line. It is not apparent to the naked eye, and for this reason is omitted from many of the cheaper saws, and given but slight consideration in other brands.

In the Atkins plant, the process of smithing is deemed one of the most important features in the manufacture of saws, and in this process we employ only the most skilled and experienced workmen.

THE GRINDING

Exaggerated for the Sake of Clearness



The figures indicate gauges, the higher the figure, the thinner the saw

Taper grinding consists in passing each blade (according to a templet) between rapidly revolving grindstones so that the blade actually tapers from the tooth edge, which is the thickest part, **THROUGHOUT** the entire blade toward the point on the back. The blade, therefore, resembles in shape an inverted wedge, and the kerf cut by the teeth is sufficiently wide to permit the balance of the blade to drop naturally into the cut, without an excessive set and with no possibility of binding or buckling in the cut.

You should realize the distinction between **ATKINS TAPER GRINDING** and the so-called thin back saw of other makes, which is ground an even thickness along the tooth edge and simply dubbed off somewhat thinner on the back. Taper grinding produces a saw say 19 gauge along its entire tooth edge, 21 gauge on its back at the butt, and from 23 to 24 gauge on the back at the point, and—now mark this well—**GRADUALLY TAPERING THROUGHOUT THE BLADE FROM THE THICKEST TOWARD THE THINNEST POINT**. This is another exclusive Atkins feature, and is to be found only in a genuine **ATKINS SILVER STEEL SAW**.

THE HANDLE

We make virtually two styles of handles—the old style straight across shape and the ATKINS IMPROVED PERFECTION PATTERN. The old style block handle is still made by us because there is a certain demand for it among mechanics who have not thoroughly tested the Perfection Pattern, or who may in any event prefer it.

The distinction between the old style and Perfection will be apparent upon noting the illustration, which shows the Perfection Handle on a saw, and a skeleton outline of how the same saw would hang with an old style handle.



Save Man Power—
Use Saws With
Perfection
Handles

Please follow the dotted lines in the picture which represent the position in which the saw blade is naturally operated through the use of the old style straight across handle. You will see that the position of the handle throws the blade downward so that the point of greatest energy—namely, in a straight line from the elbow through the saw arm and wrist—is directed against the BACK of the saw. This forces the operator to exert a downward pressure with his wrist in order to secure a proper cutting force.

Now, note the Perfection Handle, which is the one shown most prominently in the picture. Apply the straight line test to this saw and you will find that the point of greatest energy is directed immediately upon the CUTTING TEETH. There is no strain on the wrist and every ounce of pressure counts. In other words, it is the same principle as if you attempted to push a heavy object from an elevation ABOVE YOUR HEAD or on a line with your waist. The Perfection Handle comes on Saws Nos. 53, 65, 82, 400 and 401.

IMPORTANT—Do not overlook the fact, however, that we make the old style straight across handles when preferred, and furnish same regularly on certain numbers of hand saws.

THE FINISH

ATKINS SILVER STEEL SAWS may be easily distinguished by the beauty and fineness of their polish. We are the originators of the famous Damaskeen and Mirror finish, which are unique and used only by Atkins. Each Atkins saw is packed in a moisture-proof bag, and is plainly marked on the blade for identification.

ATKINS SILVER STEEL SAWS

How Classified

By reference to pages 8 to 11 you will find the popular patterns of Atkins SILVER STEEL Saws. We illustrate and describe them fully, so that you can readily ascertain the saws that are fitted with Improved Perfection Handle or Old Style Block Handle; also how they can be obtained in Skew Back, Straight Back or Ship Point patterns. Our slogan is "A Perfect Saw for Every Purpose."

HOW TO TEST AN ATKINS SAW

Hold the saw at arm's length, bending the blade slightly to bring the points of the teeth into view along the entire breast of the blade. The points should all show the same length. The breast should be slightly crowning about $\frac{1}{8}$ -inch in 30 inches. Next hold the saw in such a manner that you can look from the back along the flat side of the blade in order to examine the set. This should be uniform on both sides to perform accurate and smooth work. The setting should not extend more than one-half the length of the tooth, and under no circumstances should it be carried beyond the base of the tooth into the blade.

The handle must be in proportion, comfortable to the grasp and so fitted to the saw as to hang properly to bring the lines of force exerted in sawing at the proper point. It is very essential that the material used in making these handles is thoroughly seasoned. The wood used in Atkins handles is air dried for three years. This prevents warping or twisting, and insures tight screws that will always hold the blade properly. The handle must be slit true, for the blade and the slit must be only wide enough to admit the blade under pressure.

What you most require as a skilled mechanic is a saw that will enable you to do good work with the greatest ease. An additional cost of fifty cents or a dollar for an ATKINS SILVER STEEL SAW in preference to some other cheaper saw will prove a paying investment for you always.

ATKINS GUARANTEE

Your dealer is authorized to exchange for a new saw any saw bearing our brand which, for any legitimate reason, fails to give you perfect satisfaction, or is defective in any particular.

The dealer who has presented you with this book is a duly authorized ATKINS agent, and will take your order for any particular saw that you may wish should he not carry that saw in stock.

IMPORTANT.—Any dealer, however, whether he is an ATKINS agent or not, will take your order for anything shown in this book, as he can easily secure it from his wholesale house. Should he not carry ATKINS SILVER STEEL SAWS do not hesitate to ask him to get them for you and he will be glad to do so.

SHOULD YOU HAVE ANY DIFFICULTY IN GETTING ANY SILVER STEEL SAW THAT YOU WISH, AS SUGGESTED ABOVE, LET US KNOW AND WE WILL SEE THAT YOU ARE TAKEN CARE OF TO THE BEST ADVANTAGE. HOW TO KNOW THEM.—Every genuine ATKINS SILVER STEEL SAW is plainly marked with the three A trade-mark, and is also etched with the signature,

E. C. Atkins & Co.

NO ATKINS SAWS ARE SOLD UNDER ANY OTHER BRAND. NO OTHER IS GENUINE.

ATKINS HAND, RIP AND PANEL SAWS

SILVER STEEL

TRADE **"The Four Hundred"** MARK



SKEW BACK—SHIP POINT

"THE 401"



STRAIGHT BACK—SHIP POINT

A saw extraordinary in quality, workmanship and finish. Genuine SILVER STEEL blade, FIVE gauges taper ground. MIRROR finish. Solid ROSEWOOD handle, Perfection Pattern. Nickel-plated screws. Made in regular and ship pattern in skew and straight back.

For the critical artisan who purchases extra fine tools, this saw is recommended.

This saw is the Elite of the saw world. It is preferred by master carpenters because it is, as our slogan implies,

"The Finest on Earth"



No. 53—REGULAR PATTERN

This saw appeals to high-class mechanics for general carpentry work and is the most popular saw on the market today. The blade is of genuine SILVER STEEL, taper ground. It is given the ATKINS Exclusive Damaskeen Finish. It has a skew back and is fitted with the ATKINS PERFECTION HANDLE, made of applewood, embossed and polished. Made in both regular and ship patterns.

ATKINS HAND, RIP AND PANEL SAWS

SILVER STEEL



No. 65—SHIP POINT

Another of our most popular patterns. Same saw as No. 53, except straight back. SILVER STEEL, Damaskeen finish, embossed and polished applewood handle, Perfection pattern. Made in both regular and ship patterns.



No. 51—REGULAR PATTERN

This saw is similar to No. 53 in general specifications, excepting that it is made with the old style straight across handle. We guarantee this saw to give perfect satisfaction or your dealer will exchange it for a new saw. Our leading old-style handle pattern. Applewood handle, polished. Made in both regular and ship patterns.



No. 50—SHIP POINT

Same saw as No. 51, except it has a straight back. Made in both regular and ship patterns, with old style block handle.

ATKINS HAND, RIP AND PANEL SAWS

SILVER STEEL



No. 64—REGULAR PATTERN

An old and very popular pattern. This is a full width blade, particularly adapted for all kinds of carpentry work where fast and accurate cutting is required.

It is made of SILVER STEEL, straight back. Damaskeen finish. EMBOSSED and polished apple-wood handle, of the old style straight across pattern. Made in both regular and ship patterns.



No. 54—SHIP POINT

This is a finely finished saw, but is made to sell at a somewhat lower price than other SILVER STEEL saws. The blade is of genuine SILVER STEEL, straight back, Damaskeen finish. The handle is beech, with polished surface, old style straight across pattern. Made in both regular and ship patterns.

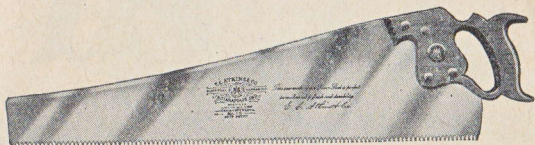


No. 72—SHIP POINT

Made only in ship pattern. A very popular light weight saw. Made of SILVER STEEL, straight back, carved and polished handle, old style pattern; 26-inch hand and rip only, and a dandy.

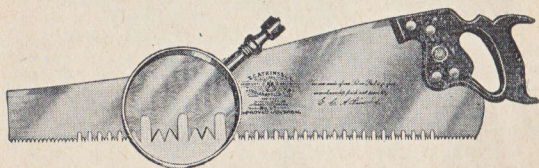
ATKINS HAND, RIP AND PANEL SAWS

SILVER STEEL



No. 52

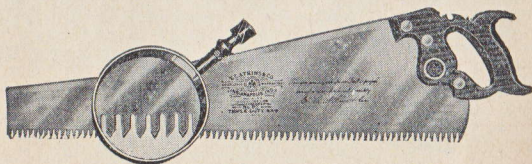
Made for specially fine CABINET work where very delicate sawing is essential. For use in seasoned and dry lumber; should be filed only, not set. Old style handle.



No. 93—IMPROVED UNIVERSAL

This saw is made with a special patented tooth. Extra large gullet and raker tooth. It is especially adapted for heavy work. It cross-cuts, mitres and rips equally well. Blade is made of high-grade SILVER STEEL, skew back, polished old style handle.

Made in 26-inch length only.



No. 82—TRIPLE DUTY SAW

A splendid saw for heavy work. Will cross-cut, rip or mitre equally well. This saw can be fitted with no more work than a regular hand saw. Made in 26-inch length only. Perfection pattern handle.

ATKINS SPECIAL SAWS

SILVER STEEL



ATKINS JUNIOR MECHANIC

Made in 20-inch length only, skew and straight back, nine point, taper ground blade, highly polished. Beech handle, coffee stained, full carved, with two nickel-plated screws and a medallion. Packed in attractive individual boxes.



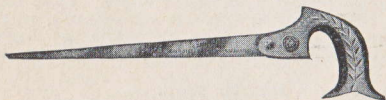
No. 21—METAL CUTTING HAND SAW

Made of SILVER STEEL and will cut all classes of ordinary metal with ease. Straight breast and back. Eighteen gauge on the toothed edge, 20 gauge on the back and gradually tapers to 23 gauge on the point.

The teeth are specially milled, straight across, but are tempered for slow filing.

The handle is made of thoroughly seasoned hardwood, polished, fastened to the blade by medallion and two nickeled screws.

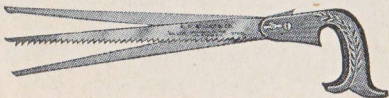
No. 22 same as No. 21, except adjustable handle.



ATKINS No. 2 COMPASS SAW

The blade is made of SILVER STEEL, specially tempered. The handle is of carved and polished applewood, made in lengths from 10 to 16 inches.

We make a number of other Compass Saws of similar construction.

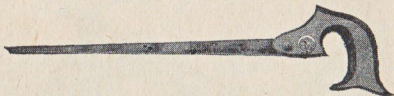


ATKINS No. 11 ADJUSTABLE COMPASS SAW

Here is a saw that will be found most convenient for general use. The blade is notched so as to fit into an adjustable handle and may be adjusted so as to cut at various angles. Made in lengths from 10 to 16 inches. SILVER STEEL.

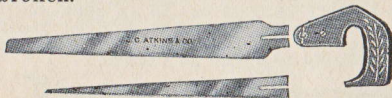
ATKINS SPECIAL SAWS

SILVER STEEL



ATKINS No. 6 KEYHOLE SAW

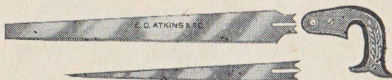
The finest keyhole saw in the world. SILVER STEEL adapts itself to this class of saw most admirably. On account of its extreme toughness, the blade holds its sharp cutting edge and is not easily broken.



ATKINS No. 1 NEST OF SAWS

This supplies a tool which should be in every carpenter's kit. The No. 1 set consists of a keyhole blade 12 inches long, compass blade 14 inches long and pruning blade 16 inches long. All fitted to an interchangeable handle.

No. 2 Nest is composed of a 10-inch keyhole blade, together with a 12 and 16-inch compass blade and an interchangeable handle.



ATKINS No. 3 NEST OF SAWS

Here is the best of all. It contains a keyhole and compass blade same as No. 1, but includes an 18-inch special nail-cutting blade. When nails or other metals are encountered, you may easily cut through the metal with the nail-cutting blade and proceed with your regular hand saw. Adjustable pattern handle.

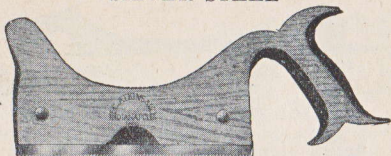


ATKINS No. 28 CARPENTERS' HANDY SAW

This is an indispensable tool for the general carpenter. It is light and compact and may be used in hundreds of cases where the ordinary saw blade is too large or cumbersome. The blade is of genuine SILVER STEEL, carved apple handle.

ATKINS SPECIAL SAWS

SILVER STEEL



ATKINS No. 27 STAIRBUILDERS' SAW

This saw is designed for sawing into flat surfaces where it is necessary to cut to an even depth. The blade is adjustable to cut the desired depth. The wood parts are of beech with varnished edge. Made in lengths 6, 8 and 10 inches.



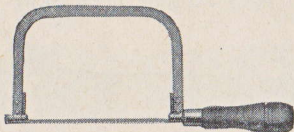
ATKINS No. 1 MITRE SAW

In the manufacture of this saw we use our genuine high-grade SILVER STEEL. The back is of extra heavy spring steel, and is clamped in place so as to hold the blade rigid. The handle is of applewood with polished edge. Made either 4, 5 or 6 inches under back.



ATKINS No. 100 FLOORING SAW

Designed for sawing into flat surfaces, such as floors, without necessity of boring or using chisel. The point is toothed on both edges so that out-of-the-way spots may be reached with ease. Made of SILVER STEEL, beautifully polished and etched. Made only in 18-inch length, 10 point.



ATKINS No. 50 COPING SAW

A strictly high-grade tool sold at a moderate price. Strong, durable, action perfect. Frame, $\frac{3}{8}$ inch wide; $\frac{3}{16}$ inch thick; made of cold-rolled steel, nicked and buffed, $7\frac{1}{4} \times 4\frac{5}{8}$ inches deep. Blade cuts at any angle.

ATKINS SCRAPERS AND SAW SPECIALTIES



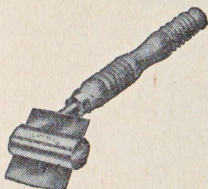
Atkins No. 4 Ramshorn Floor Scraper

Hardwood frame, easy grip, will not chatter. Furnished with genuine SILVER STEEL scraper blade which holds its edge for the longest time.



Atkins No. 5 Scraper

Made of solid metal, 11 inches long. Two thumbscrews hold blade securely in place. Center thumbscrew presses into convex form so as to hug the work closely. SILVER STEEL blade.



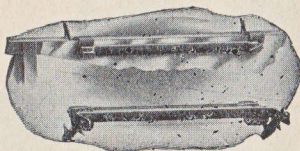
Atkins No. 3 Perfection Scraper

The most popular pattern. Hardwood handle, metal parts nicked and buffed. Blade cuts on all four sides.



Atkins No. 0 Scraper Blades

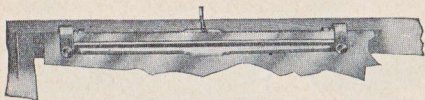
SILVER STEEL is admirably adapted for this purpose and you will find that it makes the best scraper blades that you have ever used. All standard sizes. Each blade packed in wax paper carton.



ATKINS "AAA" SAW CLAMP No. 1

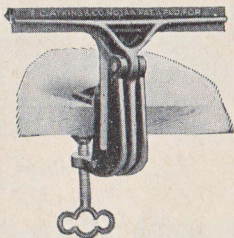
The handiest tool in your kit. Made of cold-rolled sheet steel. About the same size and weight as a chisel. Conveniently carried, instantly attached to or detached from any square surface. Saw can be reversed for jointing and setting without removing the clamp.

ATKINS SAW SPECIALTIES



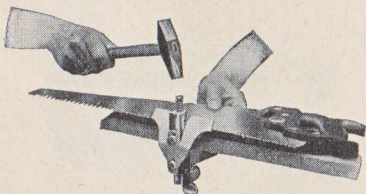
ATKINS "AAA" SAW CLAMP No. 2

This clamp differs from No. 1 in that the saw is fastened by an eccentric roller running between the two connecting arches instead of thumb screws. Attached by wood screw or loose lug.



ATKINS "AAA" SAW VISE

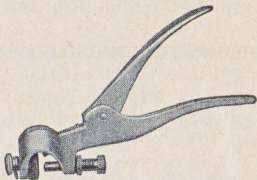
Rubber cushions prevent noise. Lock lever principle, easily attached. An old favorite.



ATKINS "AAA" SAW SET No. 5

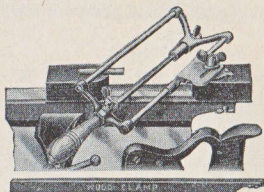
A hammer blow reaches the tooth through a plunger, insuring a uniform set with no likelihood of breaking the saw teeth. Amount of set easily and accurately adjusted.

ATKINS SAW TOOLS



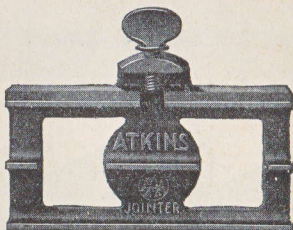
ATKINS No. 95 LEVER SAW SET

Atkins No. 95 Lever Set is one of our most convenient and popular patterns. The indicator and dial are on the outside and at the end of the tool. It is very easily adjusted. The revolving eccentric anvil has the required bevel and length for all saw teeth, ranging from 4 to 16 to the inch. Hardened anvil and plunger. Finely tempered steel spring. Heavily nickeled and buffed with a high finish.



ATKINS NO. 8 HAND-SAW FILER

A simple, accurate tool whereby saws may be uniformly filed. Action virtually automatic. Can be used with any clamp.



ATKINS NO. 15 "AAA" HAND SAW JOINTER

Atkins "AAA" Hand Saw Jointer is a very essential tool in filing hand, rip and panel saws. It is very light in construction, adds to the efficiency of the saw by making the teeth uniform in length. Should be in every saw kit.

DIRECTIONS

How to File and Set Hand, Rip and Panel Saws



Fig. 1

Bottom view showing correctly fitted Hand Saw.

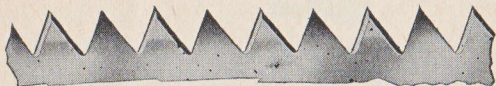


Fig. 2

Side view of properly filed and set Hand Saw. Note bevel on front of teeth.



Fig. 3

Top view of correctly fitted Hand Saws. Note set is slightly wider than entire thickness of blade, thus eliminating the chances of saw binding in the cut.

By examining the teeth of your saw you can readily tell if the teeth are uniform.

If you find the teeth are uneven, it will be necessary to "joint" and correctly shape the teeth according to the directions under "Jointing" on page 19.



Fig. 4

Showing bottom view of properly fitted Rip Saw.

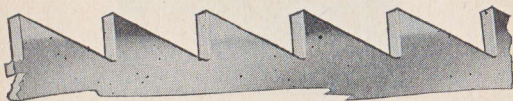


Fig. 5

Enlarged section of Rip Saw correctly filed and set. Note there is no bevel on front of teeth. Teeth are filed straight across.

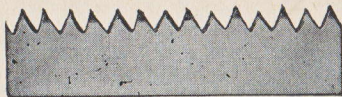
Fig. 6

This shows view looking down on back of blade. You can see that the set in the Rip Saws extends slightly wider than thickest part of blade.

If the teeth are of an even size and shaped correctly, as shown in the above illustration, the teeth will not require "jointing" and in this case refer to the directions under "Setting Saw Teeth" given on page 22.

JOINTING

Unevenness of teeth is caused in many ways by normal wear, cutting of nails, dropping the saw and unnecessary carelessness. You should remember to always treat a saw with care. This adds longer life.



Uneven Hand Saw Teeth



Uneven Rip Teeth

Fig. 7

Examine Fig. 7 and note how uneven the teeth are in both Cross Cut and Rip Saw. It shows the condition of some teeth before jointing. It is always good practice to use a jointing tool to hold a file square with the blade; see blade jointer and clamp in illustration No. 8 on page 20. This saw is ready for the jointing operation.

Jointing the teeth means filing the tops of the teeth to make them all level and of even height. Place the saw in the clamp as in illustration No. 8, pass the file lightly over the tops of the teeth; joint until the file touches each tooth; joint until the shortest tooth is touched lightly. The teeth will then look like illustration No. 9.

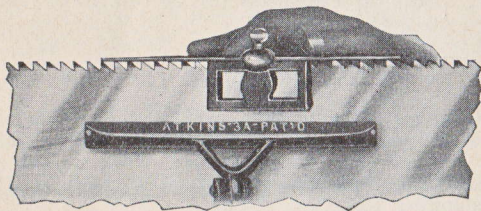
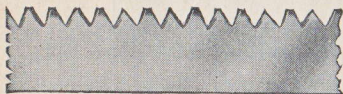


Fig. 8



Hand Jointed

Enlarged view of saw teeth jointed down evenly showing flat tops on the teeth.



Rip Jointed

Illustration of saw teeth after jointing; showing flat tops and the uneven gullets of the teeth.

Fig. 9

It is necessary that all teeth be of uniform size, shape and hook. After jointing, shape the teeth as shown in illustration No. 10. This illustration represents cross cut teeth not beveled. If you are shaping teeth for Rip Saws, see illustration No. 11 on page 21.

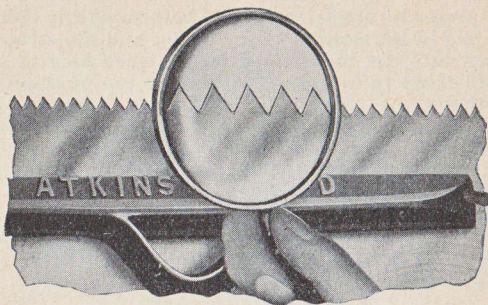


Fig. 10

Teeth not beveled for cross cutting.

The above shows an enlarged section of a Cross Cut Hand Saw with the teeth jointed and shaped properly ready for setting.

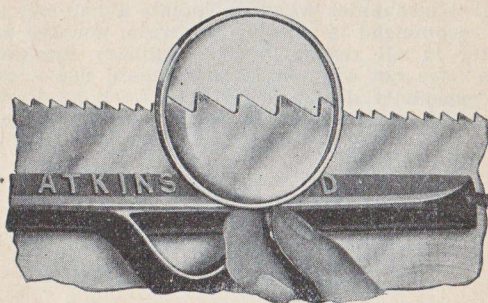


Fig. 11

Teeth shaped to a point for ripping.

This illustration shows the teeth of a Rip Saw, jointed and shaped ready for setting.

To properly shape the teeth before setting, place the file in the bottom of the gullet and file straight down into the blade until the finished side of the tooth is up to a point, and the flat top of the next tooth on the other side of the file is divided in two. Then go on to the next gullet, finishing one tooth to a point and dividing the next as before, continuing through the entire length of the blade. If the teeth in the saw are unevenly spaced as in illustration No. 9, bear in heavily against the tooth having the largest top until you reach the center of the flat top. Be sure to hold your file square and level.

SETTING SAW TEETH

Saw teeth, to clear properly, so that the saw will not bind in the wood, whether Cross Cut or Rip, should be bent outward alternately from 3/1000" to 5/1000". Saws that are straight, level and properly ground for clearance need very little set. This is to be found in ATKINS SILVER STEEL SAWS. Do not set the saw teeth too low down on the tooth. Setting should not be deeper than two-thirds the distance from the point to gullet. For skilled mechanics who can handle a hammer set we recommend it as more accurate, positive and better in all respects. The ordinary mechanic who does not often fit a saw should use a saw set especially designed for this work as shown in the illustration No. 12 of Atkins No. 395 Saw Set.

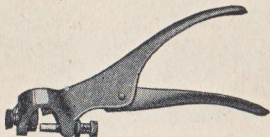


Fig. 12

ATKINS No. 395 LEVER SAW SET

Whether you use the hammer or especially designed saw set, when you have finished your saw it should look like illustration No. 13 if for cross cutting, and No. 14 if for ripping.

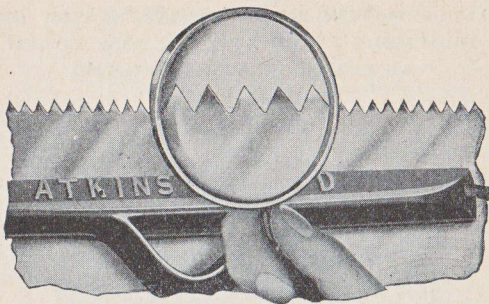


Fig. 13

The above shows Cross Cut teeth set ready to file. The teeth are even, properly shaped and set. Inspect the illustration carefully and note that the teeth are set about two-thirds the distance from point to the gullet. In general, Cross Cut Saws are tools made up of a series of "sharp knives," so arranged as to sever the fibers of the wood across the grain, as shown in illustration No. 15 on page 24.

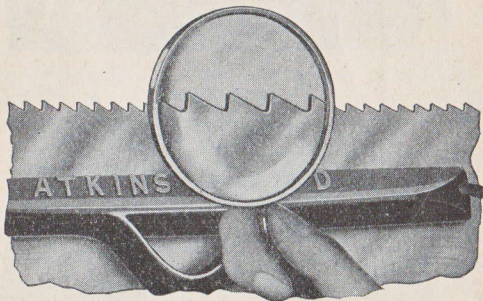


Fig. 14

This shows Rip Saw teeth ready to finish. After jointing, shaping and setting Rip Saws the pitch in rip teeth should be as shown in illustration No. 14.

With the saw teeth properly jointed and set you are now ready for finishing or pointing up and beveling.

**ILLUSTRATING THE CUTTING ACTION OF
PROPERLY FILED AND SET SAW TEETH
AS FOUND IN ATKINS SILVER
STEEL SAWS**

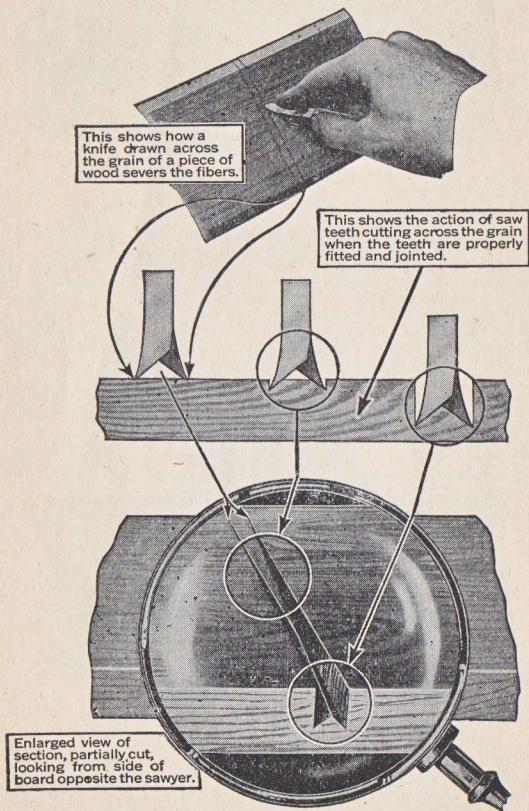


Fig. 15

FILING HAND SAWS

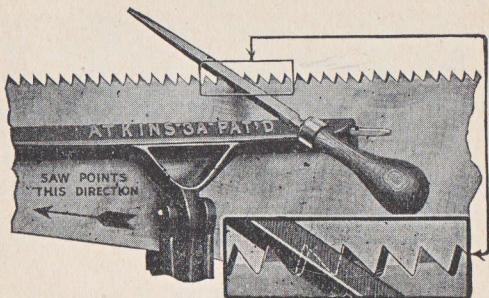


Fig. 16

The above shows a section of Cross Cut Hand Saw teeth filed properly, also the position of the file. For filing a Cross Cut Hand Saw, place the saw in a vise with the handle to the right. The vise should grip the saw from $\frac{1}{8}$ " to $\frac{1}{4}$ " below the teeth. Just before starting to bevel, pass a fine file very lightly over the tops of the teeth to make what we call a "shiner," or bright top, as you will find this useful as a guide for finishing each tooth. Your position and the position of the passing of the file should be as shown in illustration No. 16. Start in the first gullet to the LEFT of the first tooth, set away from you with your file in the position shown in illustration No. 16. Hold the file level and push it evenly and at the same time angle it across the saw, bringing each tooth to a point, possibly leaving a trifle of the "shiner" on the tooth to the right of your file. With your file in this position you can easily watch the cut of the file as you proceed with your work. Duplicate this process in EVERY OTHER gullet straight through to the handle.

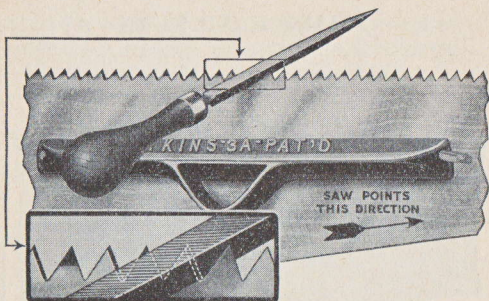


Fig. 17

Then reverse your saw in the clamp, placing the handle to the left and proceed in exactly the same manner as in the first place, except start in the first gullet to the RIGHT of the first tooth set away from you. File each tooth to a sharp point. Your position and the position of the file in this operation should be as shown in illustration No. 17.

When your saw is finished it should look like illustrations Nos. 1, 2 and 3, on page 18, showing a correctly filed Cross Cut Hand Saw, top, side and bottom views. To accomplish this result we recommend the following ATKINS SILVER STEEL FILES for various sizes of teeth:

5-5½ pt. Cross Cut Saw Teeth 6" or 7" Slim Taper File

6-7 pt. Cross Cut Saw Teeth 6" or 7" Slim Taper File

8-9 pt. Cross Cut Saw Teeth 7" Extra Slim Taper File

10-11 pt. Cross Cut Saw Teeth 4", 4½", 5" or 5½" Extra Slim Taper File

Ask your Hardware dealer for Atkins Silver Steel Files

FILING RIP SAWS

Rip Saws are filed in exactly the same manner as Cross Cut Saws are filed, except there is no bevel to the tooth of a Rip Saw. Therefore, the file is held straight across the saw at right angles to the blade and no bevel should be left on the teeth. Some filers, however, leave a slight bevel, but as Rip Saws are chisels instead of knives, as such they do not need beveling. A well filed Rip Saw should look like illustrations Nos. 4, 5 and 6 on page 18 at the beginning of the directions, showing top, side and bottom views. The proper ATKINS SILVER STEEL FILES to use for filing Rip Saws are as follows:

4 and $4\frac{1}{2}$ pt. 7" Slim Taper Files

5 and $5\frac{1}{2}$ pt. 7" Slim Taper Files

6 and $6\frac{1}{2}$ pt. 6" or 7" Slim Taper Files

If these directions are followed carefully, there should be no reason why the youngest apprentice should have trouble in caring for his most valuable tool—the Saw. Too many fine tools are ruined every day to carelessly overlook the most minute attention to your saws.

Ask for ATKINS SILVER STEEL Files as shown on pages 28, 29, 30 and 31 of this "Saw Sense" book. Accept no substitute.

ATKINS SILVER STEEL FILES

BAND SAW TAPERS



REGULAR PATTERN

ATKINS SILVER STEEL Band Saw Taper Files **Regular** Pattern are made from 4 to 10 inches, except in the 5½-inch length, which is not made. They operate easily and do fast work.



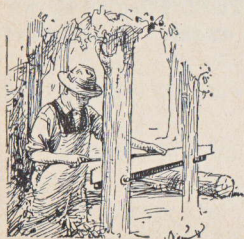
SLIM PATTERN

Here is the **Slim** Pattern of ATKINS Band Saw Taper Files. Made of SILVER STEEL—the same high-grade material as used in Atkins Saws. The sizes are confined to 6 and 8 inch lengths only.



EXTRA SLIM PATTERN

You can keep your saws in perfect working order by using "The Finest Files Made," ATKINS SILVER STEEL Files. This illustration is of the **Extra Slim** Pattern of the other Taper Files on this page. Made in 4 to 8 inch lengths only. Fast and smooth cutting.



In buying Atkins Files remember you are getting the best file known to file users—ATKINS SILVER STEEL—The Finest on Earth.

ATKINS SILVER STEEL FILES

BAND SAW BLUNT



REGULAR PATTERN

Band Saw Blunt Files as made by ATKINS are "The Finest on Earth." The **Regular** Pattern is made in the following lengths, 4, 4½, 5, 6, 7, 8 and 10 inches. They will keep your saws in better shape.



SLIM PATTERN

This is the **Slim** Pattern of ATKINS SILVER STEEL Band Saw Blunt Files. Made in two lengths only, the 6 and 8 inch. Truly a remarkable file.



EXTRA SLIM PATTERN

The illustration above is of the **Extra Slim** Pattern Band Saw Blunt. It is made in all the regular sizes from 4 to 8 inches inclusive. These files are adapted for fast, accurate and smooth work.

ATKINS manufactures a complete line of Files in all of the regularly used sizes—look for the name ATKINS, before you buy.



ATKINS SILVER STEEL FILES

IMPROVED DIAMOND POINT



REGULAR PATTERN

ATKINS Six-inch SILVER STEEL Improved Diamond Point Files are recommended for Automatic Band Saw Filing Machines. The **Regular** Pattern is made with $13/32$ -inch face. A more perfect Band Saw File is not made.



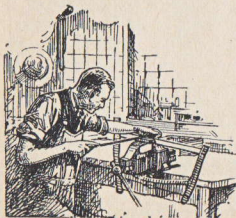
SLIM PATTERN

The **Slim** Pattern in the above file, also SILVER STEEL, is made $5/16$ -inch wide. Other lengths can be made but are not essential as the 6-inch length fits all popular or standard machines.



EXTRA SLIM PATTERN

Here is the **Extra Slim Pattern** of ATKINS SILVER STEEL Improved Diamond Point Files. The quality and workmanship is the best. The Improved Diamond Point Files are adapted for such machines as the Wardwell, Foley and Black Diamond.



Spoiling your work and temper with a poor file is one way of doing nothing; use ATKINS and be happy.

ATKINS SILVER STEEL FILES

SPECIAL FILES



ATKINS HAND SAW SPECIAL

ATKINS SILVER STEEL Hand Saw Special File is made $5\frac{1}{2}$ inches long. Used by carpenters who know files. Has perfect teeth—the real file for filing Hand Saws.



ATKINS HAND SAW SPECIAL

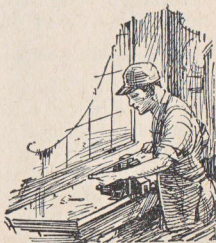
Another SILVER STEEL Hand Saw Special made 7 inches long and $\frac{1}{4}$ -inch face on each side. SILVER STEEL in Files, as in Saws, holds its edge longer and cuts more.



ATKINS HAND SAW SPECIAL

When experts buy files they demand the best; that is why they buy ATKINS, "The Finest on Earth." There are two sizes in this Hand Saw Special, $8 \times \frac{1}{4}$ inches and $8 \times 5/16$ inches. Both made of SILVER STEEL.

*Why wear away a lot of
files and energy when it's
so easy to use ATKINS—
"The Finest File Made."*



Some Valuable Information to the Everyday Carpenter

ROOF FRAMING

1. A Simple Method for Getting Lengths of Hips and Jacks for Any Pitch Roof

Draft the half of one end of building to scale with the base of the triangle equal to $\frac{1}{2}$ of the building, at one end erect a perpendicular equal to the length of common rafter, then the line joining the extremities of the legs (hypothenuse) is equal to the length of the hip for that particular building.

The jacks may be found by spacing off the building so that you have the required number of jacks. There will always be one more space than jacks. Then divide the length of the common rafter by the number of spaces and this quotient will be the length of the shortest jack. Double this for the second, treble for the third and so on.

2. Other Rules for Finding Lengths of Common Rafters

I. For one-quarter pitch roof, multiply the width of building by the decimal .56—example: 12 feet equal W X .56 equal 6.72 feet or 6 feet 9 inches.

II. For one-third pitch roof, multiply width of building by the decimal .6—example: 12 W X .6 equal 7.20 or 7 feet 2½ inches.

III. For one-half pitch roof, multiply the width of building by the decimal .71—example: 12 W X .71 equal 8.52 or 8 feet 6 inches.

IV. For one full pitch, multiply the width of building by the decimal 1.12—example: 12 W X 1.12 equal 13.44 or 13 feet 5½ inches.

Another Method for Finding Lengths of Rafters

Take the number of inches the roof is to rise to the foot on the tongue and one foot on the blade, which is the rise and run of one foot, then apply the square to the timber as many times as the number of feet in half the width of building. This gives you the exact length of the rafters, also the line of the tongue gives you the plumb-cut, and the line of the blade gives the seat cut.

Table for Finding the Length and Side Cuts of Jack Rafters

1. One-quarter pitch roof.
 13.5 in. shorter when spaced 12 in. on center.
 18 in. shorter when spaced 16 in. on center.
 27 in. shorter when spaced 24 in. on center.
 12 and 13.5 gives the side cuts for jacks in this pitch; the plumb-cuts and seat-cuts are the same as the common rafters for this pitch.
2. One-third pitch roof.
 14.4 in. shorter when spaced 12 in. on center.
 19.2 in. shorter when spaced 16 in. on center.
 28.8 in. shorter when spaced 24 in. on center.
 12 and 14.4 gives the side cut on jacks for this pitch.
3. One-half pitch roof.
 17 in. shorter when spaced 12 in. on center.
 22.6 in. shorter when spaced 16 in. on center.
 34 in. shorter when spaced 24 in. on center.
 12 and 17 gives the side cut on jacks for this pitch roof.

SHINGLING

To Find the Number of Shingles Required to Cover 100 Square Feet or One Square

Deduct 3 inches from length of shingle, divide the remainder by three, the result is the exposed length of shingles.

One square equals 14,400 square inches. Divide this number by the exposed surface; equals the required number of shingles.

Note—A shingle is 4 inches wide and of various lengths, as 15, 18, 21, 24, 27 inches.

Table for Estimating Shingles

Length Exposed Shingle to weather by		Sq. ft. covered by 1,000 shingles		Shingles for 100 sq. ft.	
Inches	Inches	4 in. Wide	6 in. Wide	4 in. Wide	6 in. Wide
15	4	111	167	900	600
18	5	139	208	720	480
21	6	167	250	600	400
24	7	194	291	514	343
27	8	222	333	450	300

To Find the Number of Shingles Required for a Roof

Multiply the length or ridge pole by twice the length of one rafter. This gives you the number of square feet in roof. If exposed $4\frac{1}{2}$ inches to weather, multiply square feet by nine, but if exposed 5 inches to weather, multiply square feet by eight.

Note—(a) Shingles are put up in two kinds of bundles, a 250 and a 200 bunch.

(b) 1 M shingles weigh about 250 lbs.

(c) 5 lbs. shingle nails will fasten 1 M shingles on a roof.

LATH

Lath are of two lengths, 48 inches and 32 inches. The following estimates are based on the 48-inch lathing, which are 4 feet long, $1\frac{1}{2}$ inches wide, which covers an area of 72 square inches. Obtain the number of square yards in building, which multiply by 15, the number required to cover one square yard. Eleven (11) lbs. of nails are required to put on 1,000 laths.

HOW TO FIGURE PLASTERING

Multiply the distance around the room by the height of room, then for the ceiling multiply the length of room in feet by the width of room in feet. Add the two products and divide by nine, which gives you the number of square yards.

Multiply the number of yards by the price per square yard; equals the total price.

Mixtures—Six to eight bushels of lime and 40 cubic feet sharp sand, $1\frac{1}{2}$ bushels of hair will plaster 100 square yards with two coats of mortar.

To every bushel of lime, estimate about $\frac{5}{8}$ cubic yards (17) sand for plastering. One-third barrel of stucco will hard finish 100 square yards of plastering.

Two bushels of lime will white coat 100 square yards of wall.

NUMBER OF NAILS REQUIRED IN CARPENTRY WORK

To case a door, 1 lb. of nails are required.

To case a window, 1 lb. of nails are required.

To put on rafters, joists and studding, etc., 3 lbs. to the 1,000 feet.

To lay a 6-inch pine floor, 15 lbs. to the 1,000 feet.

To find side of square that will inscribe in a given circle, multiply diameter by .7071.

To find the capacity of a square tank or cistern, multiply the number of cubic feet by $7\frac{1}{2}$ (or 7.48) and the result will be in gallons.

To find contents of cistern or tank, multiply the square of the mean diameter by the depth (all in feet) and this product by $5\frac{7}{8}$, the result will be in gallons.

One-fifth more siding and flooring is needed than the number of square feet of surface to be covered, because of the lap in the siding and matching.

To measure square timbers, multiply the length, width and thickness together and divide the product by 12.

NUMBER OF NAILS PER POUND

Size	Length and Gauge			Approx. No. to Lb.
2d	1	inch	No. 15	876
3d	$1\frac{1}{4}$	inch	No. 14	568
4d	$1\frac{1}{2}$	inch	No. $12\frac{1}{2}$	316
5d	$1\frac{3}{4}$	inch	No. $12\frac{1}{2}$	271
6d	2	inch	No. $11\frac{1}{2}$	181
7d	$2\frac{1}{4}$	inch	No. $11\frac{1}{2}$	161
8d	$2\frac{1}{2}$	inch	No. $10\frac{1}{4}$	106
9d	$2\frac{3}{4}$	inch	No. $10\frac{1}{4}$	96
10d	3	inch	No. 9	69
12d	$3\frac{1}{4}$	inch	No. 9	63
16d	$3\frac{1}{2}$	inch	No. 8	49
20d	4	inch	No. 6	31
30d	$4\frac{1}{2}$	inch	No. 5	24
40d	6	inch	No. 4	18
50d	$5\frac{1}{2}$	inch	No. 3	14
60d	6	inch	No. 2	11

THE HARDWARE LINE

Owing to the varied uses for saws and other tools of our manufacture and the fact that so many different classes of business are affected, our complete product has been divided into departments. Each of these departments is under the direct personal supervision of experts who have made their particular line a life study. We make:

Hand Saws, Hack Saw Blades and Frames, Cross-Cut Saws, Wood Saws, Ice Saws, Mitre Box Saws, Back Saws, Manual Training Saws, Compass and Keyhole Saws, Pruning Saws, Butcher Saws, Nest of Saws, Coping Saws, Stairbuilders' Saws, Dehorning Saws, Patternmakers' Saws, Grass Hooks, Floor Scrapers, Bench, Wall and Belt Scrapers, Cabinet Scrapers, Corn Knives, Cane Knives, etc.

ATKINS-OVA ZARUKA

Obchod, v kterem kupujete, je opraven, aby vam dal novou pilu za jakoukoli pilu, ktera ma nasi znacku, kdyz z te neb one priciny nejste s ni spokojeni anebo kdyz ma sebe mensi vadu.

ATKINSA GWARANCYA

Wasz dostawca upowaznionym jest zmienic pite na nowa, jezeli jest naszego wyrobu, w razie gdyby z jakiegokolwiek powodu was nie zadawolita, lub gdyby miata jakiekolwiek uszkodzenia.

“ATKINS” JOTALLASA

Barmely furesz, mely a mi gyartmanyunk es melyen fel van tuntetve ceg jegyunk, kicserelheto egy teljesen uj fureszszel, azon kereskedo altal a kinel vette, ha a furesz nem volna tokeletes, vagy esetleg serult allapotban volna.

Month_____

Job at_____

Contractor_____

Date		Hours	Rate	Amount	
Sun.					
Mon.					
Tues.					
Wed.					
Thur.					
Fri.					
Sat.					
Total					

**Mr. Happy Man Says—"If you had as good teeth
and temper as an ATKINS Saw, you'd
cut up more."**

CARPENTER'S TABLE OF WAGES

HOURS	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time
$\frac{1}{2}$	\$0 65	\$0 32 $\frac{1}{2}$	\$0 48 $\frac{3}{4}$	\$0 65	\$0 70	\$0 35	\$0 52 $\frac{1}{2}$	\$0 70	\$0 75	\$0 37 $\frac{1}{2}$	\$0 56 $\frac{1}{2}$	\$0 75	\$0 80	\$0 40	\$0 60	\$0 80
1	65	65	97 $\frac{1}{2}$	1 30	70	70	1 05	1 40	75	75	1 12 $\frac{1}{2}$	1 50	80	80	1 20	1 60
2	65	1 30	1 95	2 60	70	1 40	2 10	2 80	75	1 50	2 25	3 00	80	1 60	2 40	3 20
3	65	1 95	2 92 $\frac{1}{2}$	3 90	70	2 10	3 15	4 20	75	2 25	3 37 $\frac{1}{2}$	4 50	80	2 40	3 60	4 80
4	65	2 60	3 90	5 20	70	2 80	4 20	5 60	75	3 00	4 50	6 00	80	3 20	4 80	6 40
5	65	3 25	4 87 $\frac{1}{2}$	6 50	70	3 50	5 25	7 00	75	3 75	5 62 $\frac{1}{2}$	7 50	80	4 00	6 00	8 00
6	65	3 90	5 85	7 80	70	4 20	6 30	8 40	75	4 50	6 75	9 00	80	4 80	7 20	9 60
7	65	4 55	6 82 $\frac{1}{2}$	9 10	70	4 90	7 35	9 80	75	5 25	7 87 $\frac{1}{2}$	10 50	80	5 60	8 40	11 20
8	65	5 20	7 80	10 40	70	5 60	8 40	11 20	75	6 00	9 00	12 00	80	6 40	9 60	12 80
9	65	5 85	8 77 $\frac{1}{2}$	11 70	70	6 30	9 45	12 60	75	6 75	10 12 $\frac{1}{2}$	13 50	80	7 20	10 80	14 40
10	65	6 50	9 75	13 00	70	7 00	10 50	14 00	75	7 50	11 25	15 00	80	8 00	12 00	16 00

HOURS	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time	Rate per Hr.	Reg. Time	Over Time	Dbl. Time
$\frac{1}{2}$	\$0 85	\$0 42 $\frac{1}{2}$	\$0 63 $\frac{3}{4}$	\$0 85	\$0 90	\$0 45	\$0 67 $\frac{1}{2}$	\$0 90	\$0 95	\$0 47 $\frac{1}{2}$	\$0 71 $\frac{1}{2}$	\$0 95	\$1 00	\$0 50	\$0 75	\$1 00
1	85	85	1 27 $\frac{1}{2}$	1 70	90	90	1 35	1 80	95	95	1 42 $\frac{1}{2}$	1 90	1 00	1 00	1 50	2 00
2	85	1 70	2 55	3 40	90	1 80	2 70	3 60	95	1 90	2 85	3 80	1 00	2 00	3 00	4 00
3	85	2 55	3 82 $\frac{1}{2}$	5 10	90	2 70	4 05	5 40	95	2 85	4 27 $\frac{1}{2}$	5 70	1 00	3 00	4 50	6 00
4	85	3 40	5 10	6 80	90	3 60	5 40	7 20	95	3 80	5 70	7 60	1 00	4 00	6 00	8 00
5	85	4 25	6 37 $\frac{1}{2}$	8 50	90	4 50	6 75	9 00	95	4 75	7 12 $\frac{1}{2}$	9 50	1 00	5 00	7 50	10 00
6	85	5 10	7 65	10 20	90	5 40	8 10	10 80	95	5 70	8 55	11 40	1 00	6 00	9 00	12 00
7	85	5 95	8 92 $\frac{1}{2}$	11 90	90	6 30	9 45	12 60	95	6 65	9 97 $\frac{1}{2}$	13 30	1 00	7 00	10 50	14 00
8	85	6 80	10 20	13 60	90	7 20	10 80	14 40	95	7 60	11 40	15 20	1 00	8 00	12 00	16 00
9	85	7 65	11 47 $\frac{1}{2}$	15 30	90	8 10	12 15	16 20	95	8 55	12 82 $\frac{1}{2}$	17 10	1 00	9 00	13 50	18 00
10	85	8 50	12 75	17 00	90	9 00	13 50	18 00	95	9 50	14 25	19 00	1 00	10 00	15 00	20 00

For wage scale from \$1.05 to \$1.25 per hour, see following page

ATKINS
SILVER STEEL
SAWS, SAW TOOLS
AND SAW
SPECIALTIES
ARE KNOWN
THE WORLD
OVER



ALL FIRST CLASS
HARDWARE DEALERS
SELL ATKINS



SAY ATKINS
WHEN YOU BUY
AND GET
THE FINEST ON EARTH

Mr. Happy Man says~



**"You can
spoil
enough
material
with a
poor saw**

**TO BUY A
WHOLE SET OF**

**ATKINS
SILVER
STEEL
SAWS"**

